

Amendments to the Specification:

Please delete the Title Page 1 starting with the word "Inventors" and ending with the "Certificate of Mailing" so as to read, as follows:

TITLE

METHOD AND APPARATUS FOR A WEB BASED PUNCH CLOCK/TIME CLOCK --

Please delete the words ~~TITLE: METHOD AND APPARATUS FOR A WEB BASED PUNCH CLOCK/TIME CLOCK~~ on lines 1-2, page 2, of the originally filed specification.

In the Cross Reference to Related Application, insert a paragraph indent and replace the text that begins on page 2 starting with the words "This application...", as follows:

-- This application is related to and incorporates the following applications by Finch et al. ~~being~~ filed concurrently herewith in the United States Patent and Trademark Office on June 29, 2000:
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In the Cross Reference to Related Application, please replace the text that begins on page 2, item 1, as follows:

-- 1. "METHOD AND APPARATUS FOR WIRELESS WEB TIME AND EXPENSE ENTRY VIA TIME KEEPING AND EXPENSE TRACKING SERVER ACCESS" having serial number 09/606,438; --

In the Cross Reference to Related Application, please replace the text that begins on page 2, item 2, as follows:

-- 2. "METHOD AND APPARATUS FOR WIRELESS WEB TIME KEEPING AND EXPENSE ENTRY WITH A CALENDAR PROGRAM/PERSONAL ORGANIZER" having serial number 09/606,386; --

In the Cross Reference to Related Application, please replace the text that begins on page 2, item 3, as follows:

-- 3. "METHOD AND APPARATUS FOR PROVIDING FREQUENT FLYER MILES AND INCENTIVES FOR TIMELY INTERACTION WITH A TIME RECORDS SYSTEM" having serial number 09/606,385; --

In the Cross Reference to Related Application, please replace the text that begins on page 2, item 4, as follows:

-- 4. "METHOD AND APPARATUS FOR PROVIDING PROMPT PAYMENT FOR TIME ENTRIES ENTERED BY WAY OF A TIME RECORDS SYSTEM" having serial number 09/606,436; --

In the Cross Reference to Related Application, please replace the text that begins on page 3, item 5, as follows:

-- 5. "METHOD AND APPARATUS FOR MONITORING CONTRACTOR PERFORMANCE" having serial number 09/606,437; --

In the Cross Reference to Related Application, please replace the text that begins on page 3, item 6, as follows:

-- 6. "A TIME KEEPING AND EXPENSE TRACKING SERVER THAT GRANTS ACCESS TO RECORDS BASED UPON A USER'S ATOMIC ABILITIES" having serial number 09/606,439; --

In the Cross Reference to Related Application, please replace the text that begins on page 3, item 7, as follows:

-- 7. "A TIME KEEPING AND EXPENSE TRACKING SERVER THAT INERFACES WITH A USER BASED UPON USER'S ATOMIC ABILITIES" having serial number 09/606,741; [AND] and --

In the Cross Reference to Related Application, please replace the text that begins on page 3, item 8, as follows:

-- 8. "METHOD AND APPARATUS FOR UNIQUELY IDENTIFYING HARD COPY TIME SHEET FOR CROSS REFERENCE TO SYSTEM RECORDS" having serial number 09/606,436. --

Please replace the first paragraph that begins on page 7, line 1, as follows:

-- Thus, to overcome the shortcomings of the prior systems, among other shortcomings, a timekeeping and expense tracking ("TKET") system constructed according to the present invention provides a plurality of users with the ability to access the system via the ~~internet~~ Internet and via other wireline and wireless communication networks. The TKET system resides upon at least one server computer coupled to the ~~internet~~ Internet and supports access from computer systems, web enabled telephones, personal data terminals, and other enabled devices including wireless personal digital assistants (PDAs). The TKET system may therefore be accessed from both wired and wireless devices. In one embodiment, users employ browser software to access the TKET system and require no specialized client software. --

Please replace the second paragraph that begins on page 12, line 3, as follows:

-- FIGURE 8 is an illustration of a series of GUI ~~screen~~ screens that collectively illustrate a concept of users having differing and relative levels of atomic abilities for modifying the contents and arrangement of GUI ~~screen~~ screens according to one embodiment of the invention. -

Please replace the first paragraph that begins on page 14, line 2, as follows:

-- FIGURE 1 is a system diagram illustrating a time keeping and expense tracking (TKET) system 100 constructed and operating according to the present invention. A TKET server 102 couples to the ~~internet~~ Internet 104 (World Wide Web) and converses with all other devices using one or more packet switched protocols supported by the ~~internet~~ Internet 104. A telephone network 106 (which may be the public switched telephone network ("PSTN") or another telephone network couples to the ~~internet~~ Internet 104 via a gateway 108. Further, a wireless network 110 couples to the ~~internet~~ Internet 104 via a gateway 112. The manner in which the ~~internet~~ Internet 104 (or other packet switched networks) couples to the telephone network 106 and to the wireless network 110 is generally known. Thus, the interaction between the ~~internet~~ Internet 104 and the other networks 106 and 110 will be described only as it relates to the present invention. And, of course, the structure illustrated in FIGURE 1 is an example structure. Other structures may be constructed and operate according to the present invention to support time keeping and expense tracking operations. --

Please replace the second paragraph that begins on page 14, line 22, as follows:

-- Computers 114 and 116 couple to the ~~internet~~ Internet 104 and may interact with the TKET server 102 through this connection. While computer 114 has a direct connection to the ~~internet~~Internet 104, computer 116 must access the ~~internet~~ Internet via an ~~internet~~ Internet Service Provider (ISP) 118. Many users currently access the ~~internet~~ Internet via an ISP, as illustrated with the connection for computer 116. However, some computers currently access the ~~internet~~ Internet via an Intranet or other coupling network. In this construction, an ISP may not be required. Further direct connections to the ~~internet~~ Internet are already possible such as shown with computer 114. Thus, simply stated, the structure illustrated in FIGURE 1 provides a platform of operation for the present invention but must not be constructed to limit the teachings of the present invention. --

Please replace the first paragraph that begins on page 15, line 9, as follows:

-- Web-enabled telephones 124 and 126 couple to the telephone network 106. These telephones 124 and 126 each have displays upon which a GUI screen may be presented to the user. The telephone network 124, as was previously described, may be the PSTN, which transmits data in a Pulse Code Modulation (PCM) format. In another embodiment, the telephone network 124 may be a packet switched network that supports packet-based communications. The teachings of the present invention, therefore, apply equally well to current or future telephone network technology. --

Please replace the second paragraph that begins on page 15, line 19, as follows:

-- Wireless devices 120, 121 and 122 wirelessly connect to the wireless network 110. The wireless network 110 may be cellular based, satellite based or otherwise structured to provide wireless communication service within a service area. Wireless device 122 is a portable computer that services communications over a wireless link to the wireless network 110. Wireless devices 120 and 121 are personal data assistants that wirelessly communicate with the wireless network 110. The wireless network 110 communicates with the ~~internet~~ Internet 104 via the gateway 112. --

Please replace the first paragraph that begins on page 16, line 3, as follows:

-- A local area network/wide area network (LAN/WAN) 128 couples to the ~~internet~~ Internet 104 via a firewall 130. At least one computer terminal, e.g., computer 132, couples to the LAN/WAN and may communicate with the TKET server 102 via the LAN/WAN 128 and the ~~internet~~ Internet 128. The LAN/WAN may be supported by a company, a service provider or another organization. --

Please replace the third paragraph that begins on page 16, line 17, as follows:

-- According to the present invention, a plurality of users accesses the TKET server 102 via differing communication paths and using differing terminal devices. Time and expense information is uploaded from the terminal devices to the TKET server 102 where it is stored and later used to generate invoices, paychecks, reports, and other alternate records. Because the TKET server 102 is accessible from any location having ~~internet~~ Internet 104 access, the TKET server 102 provides ubiquitous service worldwide. Thus, the TKET server 102 as easily services distributed workforces as it does centralized work forces. For example users at terminal devices 120, 132 126 and 116 may work for a single employer/contractor at differing physical locations. However, in reporting time and expense information, they simply access the TKET server 102 via respective network connections. --

Please replace the second paragraph that begins on page 19, line 7, as follows:

-- For most user terminals, the response signals 136 use the hypertext transfer protocol (HTTP) that is used by web servers and client browsers to communicate over the World Wide Web. Generally, the protocol is used for moving documents around the ~~internet~~ Internet. Additionally, terminals usually employ hypertext mark-up language (HTML) for creating World Wide Web pages. Accordingly, the TKET server 102 can estimate the capabilities of the terminal, and perhaps the transmission data path from the HTTP and HTML information that is received as a part of response signals 136. As will be explained in greater detail herein this application, TKET server 102 determines the characteristics of the GUI screen display that are to be created at the user terminal according to the content of response signals 136. In addition to the HTTP and HTML information from which TKET server 102 may infer terminal or communication path capabilities, an actual synchronized address selection by the user to which response signals 136

are being routed may be used, in an alternate embodiment, by the TKET server 102 in determining GUI screen display characteristics. Alternatively, response signals 136 may merely include an indication of a user selection from which a corresponding GUI screen display is generated. --

Please replace the second paragraph that begins on page 20, line 25, as follows:

-- FIGURE 2 is a functional block diagram illustrating a TKET server coupled to a user terminal according to the present invention. A user terminal 204 communicates with TKET server 208 by way of interface 212. Interface 212 may comprise any combination of an ISP, a gateway and an ~~internet~~ Internet, a wireless network, a PSTN or any other communication network. TKET server 208 also is coupled to database 216 that is for storing user information including user selected GUI screen display parameters. --

Please replace the first paragraph that begins on page 25, line 17, as follows:

-- In yet another alternate embodiment of the invention, the GUI screen display module builds ~~an implied~~ a page based upon one of several different user created GUI screen pages stored within database 216. For example, if the GUI screen selector signal indicates that the smaller (in memory size) of the two GUI screen pages is to be built for transmission to the user terminal, the GUI screen display module may still build a GUI screen page whose elements are implied from the selected GUI screen page. To illustrate, the user may have selected a smaller GUI screen page, but based upon the user terminal type, the amount of information of the smaller GUI screen page may still exceed the capacity of the user terminal. Thus, an even more limited GUI screen must be created or "implied" from the selected screen. For example, if the user terminal is a cellular device having limited display and data processing capability, the GUI screen page may be reduced to being little more [that] than a string of alphanumeric characters even ~~through~~ though the selected server was a "REDUCED" GUI screen. --

Please replace the second paragraph that begins on page 26, line 22, as follows:

-- FIGURE 4 is a software system configuration chart that illustrates to various software layers according to an embodiment of the invention. More specifically, the chart of FIGURE 4 illustrates relative arrangement and [Each] each layer represents different levels of abstraction with respect to the software and its functionality in a TKET server. --

Please replace the first paragraph that begins on page 27, line 1, as follows:

-- The lowest level layer is the database interface layer 410. Database interface layer 410, as its name implied, is the layer at which computer instructions cause a TKET ~~SERVER~~ server processor to interact with a database 216 within a storage device to obtain specific user selected GUI screen display parameters as well as stored user data. The second layer is the coarse object layer 420. The course object layer 420 is the layer at which the programmer can access a whole table of objects as one object. --

Please replace the third paragraph that begins on page 27, line 22, as follows:

-- FIGURE 5 is a functional block diagram illustrating the relationship between users with respect to a TKET server formed according to the present invention. TKET ~~SERVER~~ server 504, an application server, is coupled to communicate with a plurality of users by way of a communication network. A user of TKET server 504 is coupled to communicate with a user terminal 508 and to transmit GUI screen displays thereto. Additionally, user terminals 512 and 516 are coupled to communicate with TKET server 504. --

Please replace the first paragraph that begins on page 28, line 4, as follows:

-- Dashed lines 520 and 524 are shown between user terminal 508 and user terminals 512 and 516 to illustrate a business relationship between the users of the respective user terminals. By way of example, if the user of user terminal 508 desires to establish a time management and tracking service and to establish a service relationship with the Operator of TKET server 504, then the user of user terminal [504] 508 is, for the purpose of this example, the administrator for the time management and tracking company. Thus, the users of terminals 512 and 516 are the clients of the user of terminal [504] 508. The letter "A" of FIGURE 5 refers to a user of a first layer, while "B1" and "B2" refer to the first and second users of a second layer. "C1" and "C2" refer to the first and second users of the second layer. --

Please replace the second paragraph that begins on page 28, line 15, as follows:

-- In the illustration of FIGURE 5, there also exists a business relationship between the users of terminals 512 and 516. For simplicity, an illustration of the business relationship between user terminals 528 and 532 and user terminal 516 is shown. User terminal 512[,] has business relationships with other lower ability users that are not shown herein. --

Please replace the third paragraph that begins on page 28, line 22, as follows:

-- One reason that the business relationships are indicated in FIGURE 5 is to illustrate why each layer of users has different ability levels. Thus, for example, user 508 may be [an] a director for the time keeping and expense tracking function subscribed or used by each of the lower ability level users 512, 516, 528 and 532 and supported by the operator of TKET server 504. Similarly, users 512 and 516 may be managers for the time keeping and expense tracking function. Users 528 and 532 may be mere users. Alternatively, they too may be managers having yet lower ability level users. For example, if each of the users 528 and 532 represent a company, each company may have organizational units such as section, departments, or divisions that are lower ability level users. A better understanding of the abilities of the different level users is explained in the discussion relating to FIGURE 8. --

Please replace the first paragraph that begins on page 29, line 11, as follows:

-- FIGURE 6 is a chart that illustrates the hierarchical relationship between different users wherein the hierarchical relationships defined levels of ability to define the characteristics and arrangement of a GUI screen page according to a preferred embodiment of the invention. The chart of FIGURE 6 illustrates the relationship of three hierarchical ability levels of users[,] and, more specifically, companies CO1 through CO5 and departments D1 through D4 of company CO5. The first hierarchical level shown generally at 604 represents an application service provider (ASP) that also serves as an administrator for the example shown herein. The administrator originally receives a GUI screen page that is set up according to a plurality of default settings. Being administrator, however, the objects of the GUI screen page may readily be modified by the ASP/Administrator. --

Please replace the second paragraph that begins on page 29, line 25, as follows:

-- The second hierarchical level shown generally at 608 includes five users 612, 616, 620, 624 and 628, each of which may have additional lower level users as shown at hierarchical level 632. For example, user 628 further includes four lower ability level users 636, 640, 644 and 648. While not shown specifically herein FIGURE 6, each of the users of level 632 may also have additional lower ~~levels~~ level users. For example, if each user of level 632 represents a different company, there may still exist several lower layers according to the size of the company and the number and arrangements of the divisions of the company. --

Please replace the second paragraph that begins on page 31, line 12, as follows:

-- The hierarchical relationship between the users affects more than screen definitions. More specifically, access control lists may be defined that specify access to specified information or lists of information. Generally, each user may transparently view the GUI ~~screen~~ screens of all lower level users. If a user belongs to multiple groups, for example, wherein there is a plurality of lower level users within each group, the user will have the ability to transparently review or even to modify the content of the GUI ~~screen~~ screens of the lower level users in each group. Each of the lower level users, however, can only review the GUI screen pages of their lower level users. They may not review the GUI screen pages of users at the same or at higher hierarchical levels. In such a case, the user is "hidden" from those users whose screens he cannot access. --

Please replace the second paragraph that begins on page 34, line 21, as follows:

-- FIGURE 8 is an illustration of a series of GUI ~~screen~~ screens that collectively illustrate a concept of users having differing and relative levels of atomic abilities for modifying the contents and arrangement of GUI ~~screen~~ screens according to one embodiment of the invention. Referring now to FIGURE 8, each of the three GUI ~~screen~~ screens contains five rows and one column of objects. In the first GUI screen 810, it may be seen that all five objects 811 through 815 are highlighted (as indicated by the box around the object) to indicate that each of the objects may be modified. The GUI screen of FIGURE 8 is one that is under the control of a

TKET server administrator having the highest level of ability to modify the objects within the screen. Accordingly, all five objects are modifiable by the user (administrator). An access list stored within the TKET server defines the access level of the user. From the stored access information, the TKET server determines that all five rows are modifiable by the user to whom the screen 810 is to be transmitted. Accordingly, each of the five objects is sent in a format to enable the receiving user to make modifications. --

Please replace the first paragraph that begins on page 36, line 11, as follows

-- Continuing to refer to FIGURE 8, it may be seen that a reporter 840 is coupled to receive each of the GUI ~~screen~~ screens 810, 820 and 830 from the user terminals displaying them. A reporter may be any type of device that is for storing or displaying information of the type being supported on each of the GUI ~~screen~~ screens. By way of example, if the system of FIGURE 8 relates to time entry, the reporter may be a terminal and screen of a supervisor that is monitoring the time entries of each of the users of the three GUI ~~screen~~ screens 810, 820 and 830. Alternatively, the reporter may be a report generating routine stored within TKET server 102 (of FIGURE 1, for example) and executed by a processor within TKET server 102. --

Please replace the second paragraph that begins on page 37, line 19, as follows:

-- FIGURE 9 is a flow chart that illustrates a method performed by a TKET server for setting GUI screen preferences for a user. First, the TKET server receives and establishes a connection with a user and determines the user ID (step 904). As was shown in FIGURE 1, the connection may comprise a path through any one of the public switched telephone networks, through a wireless network, through a local area network, through any one of the various ~~internets~~ Internets or through any combination of these networks. --

Please replace the second paragraph that begins on page 40, line 12, as follows:

-- As a part of determining how to set up a GUI screen page, the invention includes determining what type of communication channel is to be used to transmit the created GUI screen page (step 1012). For example, this step includes determining whether the GUI screen page is to be transmitted via wireless data link, through a low bandwidth serial line by way of a modem such as a typical 56K byte/sec desktop computer modem, or through high speed serial digital communication link utilizing a T1 (Trunk Level 1) or T3 (Digital Signal Level 3) line. More generally, this step includes determining the data throughput capacity of the data link for slowest known data link between the user terminal and the TKET server. --

Please replace the first paragraph that begins on page 45, line 5, as follows:

-- While the example of FIGURE 11 illustrates the user being given URLs to select GUI screen display signal characteristics being transmitted by the TKET server, other approaches may be employed. More specifically, the URLs are used to cause the communication link to establish a communication link to an ~~internet~~ Internet address. The TKET server, ~~utilizes~~ generates GUI screen display signals having characteristics that correspond to the URL. Thus, for the example

of FIGURE 11, because three URL addresses are shown, the TKET server has at least three different sets of URL signal display characteristics to generate responsive thereto. In an alternate embodiment of the invention, however, a GUI screen display may prompt the user to select from a plurality of display characteristics. The user choice is then transmitted to the TKET server for it to generate GUI screen display signals having characteristics that are responsive thereto. --